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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,059	04/13/2004	Behzad Dariush	23085-08887	6089
45380	7590	09/14/2007		
HONDA/FENWICK SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041			EXAMINER DEMILLE, DANTON D	
			ART UNIT 3771	PAPER NUMBER
			MAIL DATE 09/14/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/824,059

Applicant(s)

DARIUSH, BEHZAD

Examiner

Danton DeMille

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>7/2/7</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No.

10/481807. Although the conflicting claims are not identical, they are not patentably distinct from each other because the pending claims recite measuring an internal work volume which is the metabolic energy feasibility value. The internal work volume is the work that the user applies at a desired rate and therefore comprehends the claimed determining the metabolic energy feasibility value. The pending claims also recite measuring an external work volume which is the work that is applied externally. This would comprehend the claimed determining a mechanical energy feasibility value because it is the mechanical energy that is applied to

compensate for forces including gravity. The pending claims also recite determining the external torque imparted by making a calculation based on the first measuring means which is the internal work volume or the metabolic energy feasibility value and the external work volume which is the mechanical energy feasibility value. This would comprehend calculating said gravity compensation control torque feasibility control torque. Claim 3 of the pending application also recites identifying a first coefficient determining means for regarding a ration of the external work volume imparted with respect to the internal work volume when the coefficient is zero. This would comprehend the claimed identifying the gravity compensation control torque when the relative angular velocity between the first and second segment is zero. If the different between internal work and external work is zero the angular velocity is zero. In claim 8 of the pending application it also determines the gravity compensation control torque when the said coefficient is positive or negative. This would comprehend the claimed identifying the gravity compensation control torque feasibility value when the angular velocity is not substantially zero.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeuchi et al. WO 03/002054.

Ikeuchi teaches measuring an internal work volume which is an equivalent to the claimed metabolic energy feasibility value. The internal work volume is the work that the user applies at a desired rate and therefore comprehends the claimed determining the metabolic energy feasibility value. Ikeuchi also teaches measuring an external work volume which is the work that is applied externally. This would comprehend the claimed determining a mechanical energy feasibility value because it is the mechanical energy that is applied to compensate for forces including gravity. Ikeuchi also teaches determining the external torque imparted by making a calculation based on the first measuring means which is the internal work volume or the metabolic energy feasibility value and the external work volume which is the mechanical energy feasibility value. This would comprehend calculating said gravity compensation control torque feasibility control torque. Ikeuchi also teaches identifying a first coefficient determining means for regarding a ratio of the external work volume imparted with respect to the internal work volume when the coefficient is zero. This would comprehend the claimed identifying the gravity compensation control torque when the relative angular velocity between the first and second segment is zero. If the different between internal work and external work is zero the angular velocity is zero. Ikeuchi also determines the gravity compensation control torque when the said coefficient is positive or negative. This would comprehend the claimed identifying the gravity compensation control torque feasibility value when the angular velocity is not substantially zero. It would appear Ikeuchi teaches all of the claimed limitations however, any difference between the claims and Ikeuchi would have been obvious to one of ordinary skill in the art in order to compensate for practical considerations of specific intended use.

Response to Arguments

Applicant's arguments filed 02 July 2007 have been fully considered but they are not persuasive.

Applicant argues that the claimed metabolic work and metabolic feasibility consider the musculoskeletal efficiencies associated with concentric work and eccentric work as set forth in paragraph 33 of the present application. It is not clear how much weight can be given this argument because the specific type of metabolic work and feasibility found in the specification cannot be incorporated into the claims. Although operational characteristics of an apparatus may be apparent from the specification, we will not read such characteristics into the claims when they cannot be fairly connected to the structure recited in the claims. See *In re Self*, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982). See *In re Prater*, 415 F.2d 1393, 162 USPQ 541 (CCPA 1969) and *In re Winkhaus*, 527 F.2d 637, 188 USPQ 129 (CCPA 1975). There is nothing claimed to require the specific type of metabolic work and feasibility that is found in the specification. The claims merely recite "determining a metabolic energy feasibility value of said gravity compensation control torque". There is nothing claimed about the work requirement to hold body segments against gravity cannot therefore be determined with muscle power or joint power computations. Ikeuchi doesn't have to teach concentric work and eccentric work having different metabolic efficiencies which must be considered when calculating metabolic effects because this is not claimed. Since Ikeuchi teaches determining the internal work volume based on the metabolic energy from the floor reaction forces onto the walker's left and right legs. This is broadly a metabolic energy feasibility value.

Likewise, it is also not clear how much weight can be given the arguments that the mechanical energy feasibility value is determined by the power analysis of whether a given assist torque will lower or increase the muscle work required to execute a given task, since this is not claimed. All that is claimed is determining a mechanical energy feasibility value that broadly Ikeuchi does when determining the external work volume on the basis of torque values of the actuators 1, 2. This would appear to comprehend the claimed mechanical energy feasibility value. It is a feasible value of the mechanical energy required.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Danton DeMille whose telephone number is (571) 272-4974. The examiner can normally be reached on M-F from 8:30 to 6:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu, can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10 September 2007

/Danton DeMille/

Danton DeMille
Primary Examiner
Art Unit 3771